

WHAT IS CLAIMED IS:

1. An exchange system which comprises a telephone exchange apparatus to which at least one terminal device is connected, and a computer apparatus having a processing function of media information, comprising:

5 a media information communication path which connects the telephone exchange apparatus and the computer apparatus, and has at least one media information channel pre-assigned to the terminal device;

10 media information communication means, in each of the telephone exchange apparatus and the computer apparatus, for communicating the media information between the telephone exchange apparatus and the computer apparatus via the media information channel of said media information communication path, when an execution request of a service associated with exchange using the media information is generated; and

15 service execution means for executing the service by the telephone exchange apparatus and the computer apparatus on the basis of the media information communicated by said media information communication means.

20 2. An exchange system which comprises a telephone exchange apparatus to which at least one terminal device is connected, and a computer apparatus having a processing function of media information, comprising:

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a media information communication path which connects the telephone exchange apparatus and the computer apparatus, and has a plurality of media information channels;

5 channel selection means, in at least one of the telephone exchange apparatus and the computer apparatus, for selecting an empty media information channel from the plurality of media information channels, when an execution request of a service 10 associated with exchange using the media information is generated;

media information communication means for communicating the media information between the telephone exchange apparatus and the computer apparatus via the media information channel selected by said channel selection means; and

15 service execution means for executing the service by the telephone exchange apparatus and the computer apparatus on the basis of the media information 20 communicated by said media information communication means.

3. An exchange system which comprises a telephone exchange apparatus, and a computer apparatus having a processing function of media information, comprising:

25 a communication path which is comprised of a control information communication path for communicating control information, and a media

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information communication path for communicating the media information using a plurality of media information channels, and connects the telephone exchange apparatus and the computer apparatus;

5 channel selection means, in at least one of the telephone exchange apparatus and the computer apparatus, for communicating control information between the telephone exchange apparatus and the computer apparatus via the control information

10 communication path, and selecting an empty media information channel from the plurality of media information channels in accordance with the control information communicated via the control information communication path, when an execution request of a service associated with exchange using the media information is generated;

15 media information communication means for communicating the media information between the telephone exchange apparatus and the computer apparatus via the media information channel selected by said channel selection means; and

20 service execution means for executing the service by the telephone exchange apparatus and the computer apparatus on the basis of the media information communicated by said media information communication means.

25 4. An exchange system which comprises a telephone

exchange apparatus, and a computer apparatus having a processing function of media information, comprising:

a media information communication path which connects the telephone exchange apparatus and the computer apparatus;

5 determination means, in at least one of the telephone exchange apparatus and the computer apparatus, for checking if the service is associated with the computer apparatus, when an execution request of a service associated with exchange using the media information is generated;

10 media information communication means for communicating the media information between the telephone exchange apparatus and the computer apparatus via said media information communication path, when said determination means determines that the service is associated with the computer apparatus; and

15 service execution means for executing the service by the telephone exchange apparatus and the computer apparatus on the basis of the media information communicated by said media information communication means.

20 5. An exchange system which comprises a telephone exchange apparatus, and a computer apparatus having a processing function of media information, comprising:

25 a media information communication path which connects the telephone exchange apparatus and the

computer apparatus;

communication means, in each of the telephone exchange apparatus and the computer apparatus, for communicating control information and the media

5 information between the telephone exchange apparatus and the computer apparatus via said media information communication path, when a service request using the media information is generated; and

10 service execution means for executing the service by the telephone exchange apparatus and the computer apparatus on the basis of the control information and the media information communicated by said communication means.

15 6. An exchange system which comprises a telephone exchange apparatus to which at least one terminal device is connected, and a computer apparatus having a processing function of media information, comprising:

a media information communication path which connects the telephone exchange apparatus and the 20 computer apparatus, and has at least one media information channel pre-assigned to the terminal device;

25 media information communication means, in each of the telephone exchange apparatus and the computer apparatus, for communicating the media information between the telephone exchange apparatus and the computer apparatus via the media information channel of

said media information communication path, when an execution request of a service associated with exchange using the media information is generated;

5 first service execution means, in the telephone exchange apparatus, for executing a part of the service associated with said execution request, on the basis of the media information communicated by said media information communication means; and

10 second service execution means, in the computer apparatus, for executing another part of the service associated with said execution request, on the basis of the media information communicated by said media information communication means.

15 7. An exchange system which comprises a telephone exchange apparatus to which at least one terminal device is connected, and a computer apparatus having a processing function of media information, comprising:

20 a media information communication path which connects the telephone exchange apparatus and the computer apparatus, and has a plurality of media information channels;

25 channel selection means, in at least one of the telephone exchange apparatus and the computer apparatus, for selecting an empty media information channel from the plurality of media information channels;

media information communication means for

communicating the media information between the telephone exchange apparatus and the computer apparatus via the media information channel selected by said channel selection means;

5 first service execution means, in the telephone exchange apparatus, for executing a part of the service associated with said execution request, on the basis of the media information communicated by said media information communication means; and

10 second service execution means, in the computer apparatus, for executing another part of the service associated with said execution request, on the basis of the media information communicated by said media information communication means.

15 8. An exchange system which comprises a telephone exchange apparatus, and a computer apparatus having a processing function of media information, comprising:

 a communication path which is comprised of a control information communication path for communicating control information, and a media information communication path for communicating media information using a plurality of media information channels, and connects the telephone exchange apparatus and the computer apparatus;

25 channel selection means, in at least one of the telephone exchange apparatus and the computer apparatus, for communicating the control information

between the telephone exchange apparatus and the computer apparatus via the control information communication path, and selecting an empty media information channel from the plurality of media

5 information channels in accordance with the control information communicated via the control information communication path, when an execution request of a service associated with exchange using the media information is generated;

10 media information communication means for communicating the media information between the telephone exchange apparatus and the computer apparatus via the media information channel selected by said channel selection means; and

15 first service execution means, in the telephone exchange apparatus, for executing a part of the service associated with said execution request, on the basis of the media information communicated by said media information communication means; and

20 second service execution means, in the computer apparatus, for executing another part of the service associated with said execution request, on the basis of the media information communicated by said media information communication means.

25 9. An exchange system which comprises a telephone exchange apparatus, and a computer apparatus having a processing function of media information, comprising:

a media information communication path which connects the telephone exchange apparatus and the computer apparatus;

5 determination means, in at least one of the telephone exchange apparatus and the computer apparatus, for checking if the service is associated with the computer apparatus, when an execution request of a service associated with exchange using the media information is generated;

10 media information communication means for communicating the media information between the telephone exchange apparatus and the computer apparatus via said media information communication path, when said determination means determines that the service is 15 associated with the computer apparatus;

first service execution means, in the telephone exchange apparatus, for executing a part of the service associated with said execution request, on the basis of the media information communicated by said media 20 information communication means; and

second service execution means, in the computer apparatus, for executing another part of the service associated with said execution request, on the basis of the media information communicated by said media 25 information communication means.

10. An exchange system which comprises a telephone exchange apparatus, and a computer apparatus having

a processing function of media information, comprising:

 a media information communication path which connects the telephone exchange apparatus and the computer apparatus;

5 communication means, in each of the telephone exchange apparatus and the computer apparatus, for communicating control information and the media information between the telephone exchange apparatus and the computer apparatus via said media information communication path, when an execution request of a service associated with exchange using the media information is generated;

10 first service execution means, in the telephone exchange apparatus, for executing a part of the service associated with said execution request, on the basis of the media information communicated by said communication means; and

15 second service execution means, in the computer apparatus, for executing another part of the service associated with said execution request, on the basis of the media information communicated by said communication means.

20 11. An exchange system according to any one of claims 6 to 10, wherein said first service execution means executes at least a dialing process including the service associated with said execution request, on the basis of the media information communicated by said

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media information communication means; and
said second service execution means executes
a process, excluding said dialing process associated
with said execution request, on the basis of the media
information communicated by said media information
communication means.

12. A telephone exchange apparatus which is
connected to a computer apparatus having a processing
function of media information via a media information
communication path having a plurality of media
information channels pre-assigned to a plurality of
terminal devices, comprising:

15 media information communication means for
communicating the media information with the computer
apparatus via the media information channels, when an
execution request of a service associated with exchange
using the media information is generated; and

20 service execution means for executing at least
a part of the service on the basis of the media
information communicated by said media information
communication means.

13. A telephone exchange apparatus which is
connected to a computer apparatus having a processing
function of media information via a media information
communication path having a plurality of media
information channels, comprising:

channel selection means for selecting an empty

channel from the plurality of media information channels, when an execution request of a service associated with exchange of the media information is generated;

5 media information communication means for communicating the media information with the computer apparatus via the empty media information channel selected by said channel selection means; and

10 service execution means for executing at least a part of the service on the basis of the media information communicated by said media information communication means.

14. A telephone exchange apparatus which is connected to a computer apparatus having a processing function of media information via a control information communication path for communicating control information, and a media information communication path having a plurality of media information channels, comprising:

20 channel selection means for selecting an empty media information channel from the plurality of media information channels on the media information communication path, in accordance with the communicated control information to or from the computer apparatus via the control information communication path, when an execution request of a service associated with exchange of the media information is generated;

media information communication means for

communicating the media information with the computer apparatus via the media information channel selected by said channel selection means; and

service execution means for executing at least
5 a part of the service on the basis of the media information communicated by said media information communication means.

15. A telephone exchange apparatus which is connected to a computer apparatus having a processing function of media information via a media information communication path, comprising:

determination means for checking if the service is associated with the computer apparatus, when an execution request of a service associated with exchange
15 of the media information is generated;

media information communication means for communicating the media information with the computer apparatus via the media information communication path, when said determination means determines that the
20 service is associated with the computer apparatus; and

service execution means for executing at least a part of the service on the basis of the media information communicated by said media information communication means.

25 16. A telephone exchange apparatus which is connected to a computer apparatus having a processing which is function of media information via a media

information communication path, comprising:

communication means for communicating control information and the media information with the computer apparatus via the media information communication path,

5 when an execution request of a service associated with exchange of the media information is generated; and

service execution means for executing at least a part of the service on the basis of the control information and media information communicated by said communication means.

17. A computer apparatus which is connected to a telephone exchange apparatus, to which at least one terminal device is connected, via a media information communication path having a plurality of media information channels pre-assigned to the terminal device, comprising:

media information communication means for communicating the media information with the telephone exchange apparatus via the media information channels, when an execution request of a service associated with exchange using media information is generated; and

20 service execution means for executing at least a part of the service on the basis of the media information communicated by said media information communication means.

25 18. A computer apparatus which is connected to a telephone exchange apparatus, to which at least one

terminal device is connected, via a media information communication path having a plurality of media information channels, comprising:

channel selection means for selecting an empty media information channel from the plurality of media information channels, when an execution request of a service associated with exchange using media information is generated,;

media information communication means for communicating the media information via the media information channel selected by said channel selection means; and

service execution means for executing at least a part of the service on the basis of the media communicated received by said media information communication means.

19. A computer apparatus which is connected to a telephone exchange apparatus, to which at least one terminal device is connected, via a control information communication path for transmitting control information, and a media information communication path having a plurality of media information channels, comprising:

channel selection means for selecting an empty media information channel from the plurality of media information channels on the media information communication path in accordance with communicating

control information to or from the telephone exchange apparatus via the control information communication path, when an execution request of a service associated with exchange using media information is generated; ;

5 media information communication means for communicating the media information with the telephone exchange apparatus via the media information channel selected by said channel selection means; and

10 service execution means for executing at least a part of the service on the basis of the media information communicated by said media information communication means.

15 20. A computer apparatus which is connected to a telephone exchange apparatus, to which at least one terminal device is connected, via a media information communication path, comprising:

determination means for checking if the service is associated with the self apparatus, when an execution request of a service associated with exchange using media information is generated;

20 media information communication means for communicating the media information with the telephone exchange apparatus via the media information communication path, when said determination means determines that the service is associated with the self apparatus; and

service execution means for executing at least

a part of the service on the basis of the media information communicated by said media information communication means.

21. A computer apparatus which is connected to
5 a telephone exchange apparatus, to which at least one terminal device is connected, via a media information communication path, comprising:

10 communication means for communicating control information and media information with the telephone exchange apparatus via the media information communication path, when an execution request of a service associated with exchange using media information is generated; and

15 service execution means for executing at least a part of the service on the basis of the control information and the media information communicated by said communication means.

22. An exchange system which comprises a telephone exchange apparatus to which at least one terminal device is connected, and a computer apparatus having
20 a processing function of media information, comprising:

25 a media information communication path which connects the telephone exchange apparatus and the computer apparatus, and has at least one media information channel pre-assigned to the terminal device;

media information communicator in each of the

telephone exchange apparatus and the computer apparatus, for, communicating the media information between the telephone exchange apparatus and the computer apparatus via the media information channel of said media information communication path, when an execution request of a service associated with exchange using the media information is generated; and

service executer for executing the service by the telephone exchange apparatus and the computer apparatus on the basis of the media information communicated by said media information communicator.

23. An exchange system which comprises a telephone exchange apparatus to which at least one terminal device is connected, and a computer apparatus having a processing function of media information, comprising:

a media information communication path which connects the telephone exchange apparatus and the computer apparatus, and has a plurality of media information channels;

20 channel selector, in at least one of the telephone exchange apparatus and the computer apparatus, for, selecting an empty media information channel from the plurality of media information channels, when an execution request of a service associated with exchange using the media information is generated;

media information communicator for communicating the media information between the telephone exchange

apparatus and the computer apparatus via the media information channel selected by said channel selector; and

service executer for executing the service by the telephone exchange apparatus and the computer apparatus on the basis of the media information communicated by said media information communicator.

24. An exchange system which comprises a telephone exchange apparatus, and a computer apparatus having a processing function of media information, comprising:

a communication path which is comprised of a control information communication path for communicating control information, and a media information communication path for communicating the media information using a plurality of media information channels, and connects the telephone exchange apparatus and the computer apparatus;

channel selector, in at least one of the telephone exchange apparatus and the computer apparatus, for

communicating control information between the telephone exchange apparatus and the computer apparatus via the control information communication path, when an execution request of a service associated with exchange using the media information is generated, and selecting an empty media information channel from the plurality of media information channels in accordance with the control information communicated via the control

information communication path;

media information communicator for communicating
the media information between the telephone exchange
apparatus and the computer apparatus via the media
5 information channel selected by said channel selector;
and

service executer for executing the service by the
telephone exchange apparatus and the computer apparatus
on the basis of the media information communicated by
10 said media information communicator.

25. An exchange system which comprises a telephone
exchange apparatus, and a computer apparatus having
a processing function of media information, comprising:

a media information communication path which
15 connects the telephone exchange apparatus and the
computer apparatus;

determinater, in at least one of the telephone
exchange apparatus and the computer apparatus, for
checking if the service is associated with the computer
20 apparatus, when an execution request of a service
associated with exchange using the media information is
generated;

media information communicator for communicating
the media information between the telephone exchange
25 apparatus and the computer apparatus via said media
information communication path, when said determinater
determines that the service is associated with the

computer apparatus; and

service executer for executing the service by the telephone exchange apparatus and the computer apparatus on the basis of the media information communicated by said media information communicator.

26. An exchange system which comprises a telephone exchange apparatus, and a computer apparatus having a processing function of media information, comprising:

a media information communication path which connects the telephone exchange apparatus and the computer apparatus;

communicator, in each of the telephone exchange apparatus and the computer apparatus, for communicating control information and the media information between the telephone exchange apparatus and the computer apparatus via said media information communication path, when a service request using the media information is generated; and

service executer for executing the service by the telephone exchange apparatus and the computer apparatus on the basis of the control information and the media information communicated by said communicator.

27. An exchange system which comprises a telephone exchange apparatus to which a plurality of terminal devices are connected, and a computer apparatus, comprising:

a media information communication path for

connecting the telephone exchange apparatus and
the computer apparatus;

transfer means of the telephone exchange apparatus
for transferring the voice signal to the computer
apparatus via said media information communication
path, when a voice signal is sent from one of the
plurality of terminal devices;

speech recognition means of the computer apparatus
for recognizing contents of the voice signal
transferred by said transfer means; and

dialing means of the telephone exchange apparatus
for executing a dialing process to another terminal
device on the basis of a speech recognition result.

28. A telephone exchange apparatus which is
connected to a computer apparatus having a speech
recognition function via a media information
communication path, and to which a plurality of
terminal devices are connected, comprising:

transfer means for transferring the voice signal
to the computer apparatus via the media information
communication path, when a voice signal is sent from
one of the plurality of terminal devices; and

dialing means for executing a dialing process to
another terminal device on the basis of a speech
recognition result of the computer apparatus.

29. A computer apparatus which is connected to
a telephone exchange apparatus, to which a plurality of

terminal devices are connected, via a media information communication path, comprising:

speech recognition means for recognizing contents of the voice signal, when a voice signal comes from the

telephone exchange apparatus via the media information communication path; and

transfer means for transferring a speech recognition result of said speech recognition means to the telephone exchange apparatus via the media information communication path, and making the telephone exchange apparatus execute a dialing process to another terminal device.